

Science Curriculum Overview

Key Scientific Knowledge- Substantive Knowledge (taken from the NC)

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Animals & Humans: Name and identify body parts; explore five senses; compare human and animal body parts	Light & Dark: Identify sources of light; explore shadows; differentiate between day and night; nocturnal & diurnal animals	Seasonal Change: Recognise and describe seasonal changes; track weather; identify clothing for different seasons	Living Things & Their Habitats: Observe and describe plants, animals, natural objects; develop care for living things; plant growth & life cycles	Earth & Space: Recognise the Earth, Moon, stars, and planets; explore space exploration (NASA)	Materials: Compare materials; explore changes over time; effects of heating and cooling
Year 1 & 2 (A)	Seasonal Changes: Observe & record seasonal changes; measure wind, temperature, precipitation; investigate day length	Everyday Materials: Identify & classify materials based on properties; explore natural & human-made materials	Animals Including Humans: Identify & classify animals; explore animal body structures; understand senses and safety		Plants: Identify plant parts; investigate local plants; study plant life cycles	
Year 1 & 2 (B)	Chemistry - Properties of Materials: Investigate uses of materials; sustainability & recycling; study John Macadam, John Dunlop, Charles Macintosh	Biology - Animals Including Humans: Study human life cycle; explore health & hygiene; investigate spread of germs	Biology - Plants: Observe plant growth & germination; study unusual plants (Venus flytrap, pineapple plant) (Pond Study): Define habitats; investigate local habitats; study food chains & relationships		Animal including humans Living Things and Their Habitat Microhabitats: Identify invertebrates; study food chains; explore human impact on environments	
Year 3	Physics - Forces: Investigate pushes & pulls; friction; magnetism	Physics - Light: Identify light sources; explore reflection & shadow formation	Animals Including Humans: Classify animals; study human diet & nutrition; skeletal types & muscle function Plants: Study root systems & stems; explore water transport & leaf structure		Rocks & Soils: Classify rock types; study fossil formation & Mary Anning's contributions	Rocks & Soils: Classify rock types; study fossil formation & Mary Anning's contributions

Year 4	Physics - Sound: Investigate sound vibrations; pitch & volume; sound travel through different materials	Living Things & Their Habitats: Classify organisms using keys; study environmental changes & endangered species	Animals Including Humans: Study digestive system; teeth types; food chains & ecosystem changes	Chemistry - States of Matter: Classify solids, liquids, gases; study changes in state & water cycle	Physics - Electricity: Construct circuits; explore conductors & insulators, Investigate circuits, switches, and electrical resistance:
Year 5	Chemistry - Properties of Materials: Classify materials based on hardness, transparency, conductivity; test materials for different uses	Physics - Earth & Space: Study planetary movements; heliocentric vs. geocentric models; impact of Earth's rotation	Animals Including Humans: Study human development stages; compare gestation periods & life expectancy	Biology - Reproduction in Plants & Animals: Explore life cycles & reproductive processes; study Jane Goodall's work	Physics - Forces: Investigate gravity, air & water resistance; study friction & mechanisms like levers, pulleys, gears
Year 6	Living Things & Their Habitats: Classify plants & animals using Linnaean system; explore microorganisms & their roles	Physics - Light: Investigate light travel, refraction, reflection, colour perception; create periscopes	Animals Including Humans: Investigate circulatory system; study heart function, blood vessels & blood components	Physics - Electricity: Construct circuits using symbols; explore voltage effects & resistance in wires	Evolution & Inheritance: Study inherited traits; explore adaptation, natural selection, Darwin & Wallace's theories

